stressed beyond their elastic limit to hold the vibration source in compression, the vibration source being within that opening so that the vibration source is held in compression by the resonator under a defined preload, the vibration source causing the resonator to vibrate in at least a first mode to cause a selected contacting portion on the resonator to move in a predetermined manner.

3. (Once Amended) The apparatus of Claim 2, wherein the vibratory source is a piezoelectric element.

32. (Once Amended) The method of Claim 25, comprising interposing a resilient mount for the resonator between the piezoelectric element and one of the end walls.

33. (Once Amended) The method of Claim 26, comprising interposing a resilient mount for the resonator between the piezoelectric element and one of the end walls.

35. (Once Amended) A piezoelectric element configured to fit into an opening in a resonator, the opening being defined by sidewalls located on opposing sides of a longitudinal axis through the opening and separated by a first dimension, and opposing end walls located on the longitudinal axis and separated by a second dimension, comprising:

a piezoelectric element having a first dimension that is smaller than the first dimension of the opening and having a second dimension larger than the second dimension of the opening and selected to stress the sidewalls beyond their elastic limit when the piezoelectric element is inserted into the opening, the piezoelectric element having inclined edges corresponding in location to edges of the end walls when the piezoelectric element is aligned to be inserted into the opening.

37. (Once Amended) A piezoelectric element configured to fit into an opening in a resonator, the opening being defined by sidewalls located on opposing sides of a longitudinal axis through the opening and separated by a first dimension, and opposing end walls located on the longitudinal axis with a resilient support for the resonator being interposed between one end wall and the piezoelectric element during

use, the contacting end wall and the contacting surface of the resilient support being separated by a second dimension, comprising:

a piezoelectric element having a first dimension smaller than the first dimension of the opening and having a second dimension larger than the second dimension of the opening and selected to stress the sidewalls beyond their elastic limit when the piezoelectric element is inserted into the opening with the resilient support interposed between the piezoelectric element and one end wall, the piezoelectric element having at least one inclined edge corresponding in location to at least the edge of the end wall when the piezoelectric element is aligned to be inserted into the opening.

39. (Once Amended) A piezoelectric element configured to fit into an opening in a resonator, the opening being defined by sidewalls located on opposing sides of a longitudinal axis through the opening and separated by a first dimension, and opposing end walls located on the longitudinal axis with a resilient support for the resonator being interposed between one end wall and the piezoelectric element during use, the end walls being separated by a second dimension, wherein the piezoelectric element has edges on surfaces that are located to engage walls defining the opening, with the edges having inclined surfaces on them.

40. (Once Amended) A resonator for use with a piezoelectric actuator, the resonator having a continuous walled, externally accessible opening sized to receive a piezoelectric element and hold the element in compression, the opening being defined in part by opposing sidewalls that are curved, with a piezoelectric element located in the opening, the piezoelectric element being sized relative to the opening to stress the sidewalls past their elastic limit when the piezoelectric element is mounted in the opening.

Please delete Claims 38 and 45.

46. (Once Amended)The resonator of Claim 40, further comprising a resilient resonator support element interposed between, and held by compression between, the piezoelectric element and one wall defining the opening.

Please add the following new claims:

47. (New) The apparatus of Claim 5, wherein the at least two sidewalls are curved whether or not the vibration source is mounted in the opening.

48. (New) The apparatus of Claim 20, wherein the two sidewalls are curved whether or not the piezoelectric element is mounted in the opening.

49. (New) The apparatus of Claim 28, wherein there are at least two sidewalls each of which is curved whether or not the piezoelectric element is mounted in the opening.

50. (New) The apparatus of Claim 40, wherein the opening is defined by at least two sidewalls each of which is curved whether or not the piezoelectric element is mounted in the opening.

51. (New) The apparatus of Claim 1, wherein the resonator comprises an elongated member having a longitudinal axis and a second axis perpendicular thereto, and wherein every cross-section of the resonator perpendicular to the second axis is the same.

52. (New) The apparatus of Claim 1, wherein the resonator comprises an elongated member having a longitudinal axis and wherein the opening further includes two opposing end walls on the longitudinal axis, the vibration source being held by said opposing end walls, and wherein the resonator further comprises:

a first section extending between a first and a second plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the selected contacting portion and spaced no further apart than needed to completely include the selected contacting portion;

a second section extending between a third and a fourth plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the first end wall and any shaped surface leading to the first end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said first end wall and said shaped surface;

a third section extending between a fifth and a sixth plane each perpendicular to the longitudinal axis and spaced apart to completely include the second end wall and any shaped surface leading to the second end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said second end wall and any shaped surface

leading to said second end wall; and

wherein the resonator has a second axis perpendicular to the longitudinal axis such that, excluding the first, second and third sections, every cross-section of the resonator parallel to the second axis is the same.

53. (New) The apparatus of Claim 39, wherein the inclined surface is located and sized to make it easier to press-fit the piezoelectric element into the opening.

54. (New) A vibratory apparatus for moving a driven element, comprising:

a vibration source that converts electrical energy directly into physical motion;

a resonator having at least two opposing sidewalls defining an opening, the vibration source being held by the walls of the opening, the walls including opposing sidewalls that are stressed beyond their elastic limit in order to place and hold the vibration source in compression within the opening,

55. (New) The vibratory apparatus of Claim 54, wherein the vibration source causes the resonator to vibrate in at least a first mode to cause a selected contacting portion on the resonator to move in a predetermined manner.

56. (New) A vibratory apparatus for moving a driven element, comprising:

a vibration source that converts electrical energy directly into physical motion;

a resonator having walls defining an opening defined by at least two opposing sidewalls, the vibration source being held by the walls of the opening, the walls including opposing sidewalls that are stressed beyond their yield point but below their ultimate strength in order to place and hold the vibration source in compression within the opening.

57. (New) The apparatus of Claim 19, wherein the resonator further comprises:

a first section extending between a first and a second plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the selected contacting portion and spaced no further apart than needed to completely include the selected contacting portion;

a second section extending between a third and a fourth plane each of which is

perpendicular to the longitudinal axis and spaced apart to completely include the first end wall and any shaped surface leading to the first end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said first end wall and said shaped surface;

a third section extending between a fifth and a sixth plane each perpendicular to the longitudinal axis and spaced apart to completely include the second end wall and any shaped surface leading to the second end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said second end wall and any shaped surface leading to said second end wall; and

wherein the resonator has a second axis perpendicular to the longitudinal axis such that, excluding the first, second and third sections, every cross-section of the resonator parallel to the second axis is the same.

58. (New) The method of Claim 34, wherein the resonator further comprises:

a first section extending between a first and a second plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the selected contacting portion and spaced no further apart than needed to completely include the selected contacting portion;

a second section extending between a third and a fourth plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the first end wall and any shaped surface leading to the first end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said first end wall and said shaped surface;

a third section extending between a fifth and a sixth plane each perpendicular to the longitudinal axis and spaced apart to completely include the second end wall and any shaped surface leading to the second end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said second end wall and any shaped surface leading to said second end wall; and

wherein the resonator has a second axis perpendicular to the longitudinal axis such that, excluding the first, second and third sections, every cross-section of the resonator parallel to the second axis is the same.

59. (New) The resonator of Claim 40, wherein the resonator comprises a selected contacting portion and an elongated member having a longitudinal axis and a second axis perpendicular thereto, and wherein the opening comprises two opposing end walls on the longitudinal axis, the vibration source being held by said opposing end walls, and wherein the resonator further comprises:

a first section extending between a first and a second plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the selected contacting portion and spaced no further apart than needed to completely include the selected contacting portion;

a second section extending between a third and a fourth plane each of which is perpendicular to the longitudinal axis and spaced apart to completely include the first end wall and any shaped surface leading to the first end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said first end wall and said shaped surface;

a third section extending between a fifth and a sixth plane each perpendicular to the longitudinal axis and spaced apart to completely include the second end wall and any shaped surface leading to the second end wall to help press-fit the piezoelectric into the opening and spaced no further apart as to completely embrace said second end wall and any shaped surface leading to said second end wall; and

wherein the resonator has a second axis perpendicular to the longitudinal axis such that, excluding the first, second and third sections, every cross-section of the resonator parallel to the second axis is the same.

60. (New) The apparatus of Claim 19, wherein the opening in the resonator further comprises at least two opposing edges on a common exterior surface of the resonator, the edges being inclined and located to make it easier to press-fit the piezoelectric element into the opening.

61. (New) The apparatus of Claim 1, wherein the two opposing sidewalls are stressed beyond their yield point but below their ultimate strength in order to place and hold the vibration source in compression within the opening.

62. (New) The apparatus of Claim 19, wherein the two opposing sidewalls are stressed beyond their yield point but below their ultimate strength in order to place and hold the piezoelectric element in compression.

63. The method of Claim 25, wherein the sidewalls are stressed beyond their yield point but below their ultimate strength in order to place the piezoelectric element in compression.

64. The method of Claim 25, wherein the sidewalls are stressed beyond their elastic limit before the piezoelectric element is placed in the opening.

65. (New) The method of placing a piezoelectric element in compression in a resonator, the resonator having end walls and at least two sidewalls defining an opening sized to receive and place the piezoelectric element in compression, comprising:

increasing the distance between opposing end walls enough to allow the piezoelectric element to be forced between the end walls with a force that by itself could not force the piezoelectric element between the end walls in the original state of the opening, and thereby placing the piezoelectric element in compression, the sidewalls being stressed beyond their elastic limit by at least one of the increasing distance between opposing end walls and forcing the piezoelectric element between the end walls.

66. The method of Claim 65, wherein both the increasing distance between opposing end walls and forcing the piezoelectric element between the end walls stress the sidewalls beyond the elastic limit.

67. The method of Claim 66, further comprising providing an inclined surface on at least one of either the end walls or the corresponding edges of the piezoelectric element, and forcing the piezoelectric element into the opening by engaging said at least one inclined surface.

68. The method of Claim 66, further comprising stressing the sidewalls beyond their yield stress but not beyond their ultimate strength.